**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Previously Presented) Method to produce a solar cell wherein on a substrate a dissolvable intermediate layer is deposited, on the intermediate layer a layer structure is deposited, the intermediate layer is dissolved subsequently, which separates the layer structure from the substrate, and thereby from the layer structure a flexible solar cell is formed, wherein said solar cell has an absorber layer consisting of a material of the group of I-III-VI compounds of the periodic system or a material of the group of II-VI compounds of the periodic system.

2. (Previously Presented) Method according to claim 1 wherein the layer structure is formed by a supporting layer and a layer stack.

3. (Previously Presented) Method according to claim 1 wherein the layer structure is formed by a layer stack and that after dissolution of the intermediate layer the layer stack is provided with a supporting layer.

4. (Previously Presented) Method according to claim 1 wherein after dissolution of the intermediate layer the substrate is reused.

5. (Currently Amended) ~~Method according to claim 1, wherein the intermediate layer consists of a material of the group of the alkali-halogenides or a material of the group of the IIa-fluorides, whereby said solar cell is improving efficiency by diffusion of akali ion through the supporting layer so that the alkali ion is incorporated in the II-VI and I-III-VI compounds during growth.~~

Method to produce a solar cell wherein on a substrate a dissolvable intermediate layer is deposited, on the intermediate layer a layer structure is deposited, the intermediate layer is dissolved subsequently, which separates the layer structure from the substrate, and thereby from the layer structure a flexible solar cell is formed, wherein said solar cell has an absorber layer consisting of a material of the group of I-III-VI compounds of the periodic system or a material of the group of II-VI compounds of the periodic system, the intermediate layer consists of a material of the group of the alkali-halogenides or a material of the group of the IIa-fluorides, whereby said solar cell is improving efficiency by diffusion of akali ion through the supporting layer so that the alkali ion is incorporated in the II-VI and I-III-VI compounds during growth.

6. (Previously Presented) Method according to claim 1 wherein several combinations of layer stacks with or without separating layers between the layer stacks are deposited one upon the other.

7. Cancelled

8. (Currently Amended) ~~Solar cell~~ Method according to claim 1, wherein the solar cell comprises ~~consisting of~~ at least one absorber layer of a semiconductor, ~~of~~ at least one window layer of a semiconductor to couple ~~the~~ light in, ~~of~~ at least one at least partially transparent front contact, ~~and~~ at least one backcontact, ~~wherein the solar cell contains~~ at least one thin supporting layer ~~and~~ that ~~this supporting layer~~ adjoins to the back contact or is located on the front contact.

9. (Currently Amended) ~~Solar cell~~ Method according to claim 8 wherein the supporting layer consists of a plastic, ~~or of~~ a metal or a ceramic, and ~~that~~ its thickness is 1 - 100 µm.

10. (Canceled)

11. (Currently Amended) ~~Solar cell~~ Method according to claim 8 wherein the window layer consists of a semiconductor material with a band gap which is at least as large as that of the absorber layer, and where the structure of the layers is polycrystalline or amorphous.

12. (Currently Amended) ~~Solar cell~~ Method according to claim 8 wherein the absorber layer consists of $CuIn_xGa_yS_zSe_u$ with $x,y,z,u \geq 0$ and the window layer contains at least one material of the group of doped or undoped ZnO, InSnO (ITO), CdS and ZnSe.

13. (Currently Amended) ~~Solar cell~~ Method according to claim 8 wherein the flexible solar cell structure~~, depending on application,~~ contains a rigid supporting material.

14. (Previously Presented) Method according to claim 1 wherein the material of the group of I-III-VI compounds of the periodic system is $CuIn_xSe_y$, $CuIn_xGa_ySe_z$, or $CuIn_xGa_ySe_zSe_u$, with $x,y,z,u \geq 0$.

15. (Previously Presented) Method according to claim 1 wherein the material of the group of II-VI compounds of the periodic system is CdTe.

16. (Previously Presented) Method according to claim 5 wherein the material of the group of the alkali-halogenides is NaCl or NaF.

17. (Previously Presented) Method according to claim 5 wherein the material of the group of the IIa-fluorides is $BaF_2$.

18. Cancelled

19. (Currently Amended) ~~Solar cell~~ Method according to claim 9 wherein the plastic is a polyimide.

20. (Currently Amended) ~~Solar cell~~ Method according to claim 9 wherein the thickness is 20 μm.

21. (Currently Amended) ~~Solar cell~~ Method according to claim 13 wherein the rigid supporting material is a glass, metal or ceramic.